

REMARKS

The applicant appreciates the Examiner's thorough examination of the application and requests reexamination and reconsideration of the application in view of the preceding amendments and the following remarks. The applicant also appreciates the Examiner's indication that claims 14-15, 17-20, 34-40, 42 and 45-47 are allowed and claims 3, 6, 8-9, 12-13, 23, 26, 28-29 and 32-33 are allowable.

The Examiner rejects claims 1, 2, 4-5, 7, 10-11, 21-22, 24-25, 27, 30-31 and 43-44 under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,741,260 to *Songer et al.* in view of U.S. Patent No. 5,476,465 to *Preissman*.

Claim 1 of the subject application is directed to a crimping system. A crimp tube has an aperture formed along a long axis of the crimp tube for a suture to be located within the aperture of the crimp tube. A set of crimp devices are provided for attachment to first and second portions of the suture. Claim 1 also recites a unique crimping tool. Two arms each have a proximal end and a distal end, the proximal end comprising a handle and the distal end comprising a jaw. A first crimping member is integral with the first jaw and has a first inner surface width. A second crimping member is integral with the second jaw and has a second inner surface width.

The Examiner alleges that:

Songer discloses a crimp tube 36 crimped by a crimping tool having jaws, handles and crimping members with gaps therebetween when closed. A tensioner holds tension on a suture crimped into the lumen of the tube. Two crimp tubes are shown, one being the claimed crimp tube and the other being one of the set of crimp devices. However a plurality of crimp devices are not disclosed.

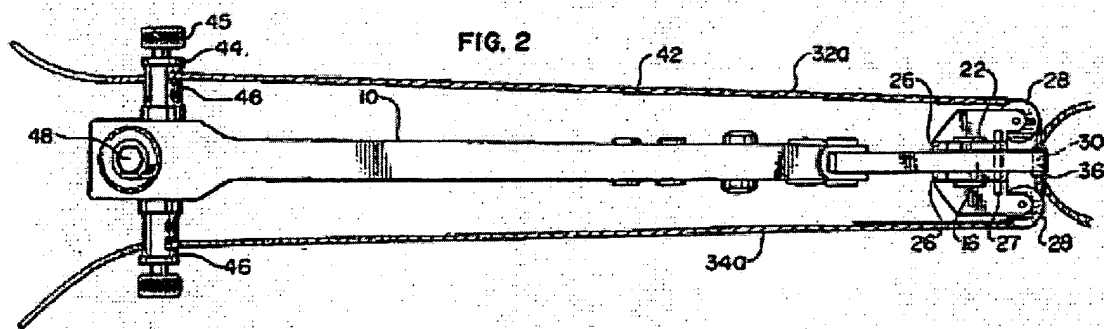
It would have been obvious to have provided a set with more than two crimp tubes as it is nothing more than an obvious

duplication of known parts, and would allow for the placement of a multitude of crimp tubes along the sternum.

In operation of the *Songer* system, end portions 32a, 34a of cable 42 extend within crimp 36 and along pliers handle 12 to capstan member 44. Both end portions 32a, 34a are tightened about the drums of the capstan. Then, pliers 10 are activated to crush crimp 36, and end portions 32a, 34a outside of crimp 36 may be cut and removed. See Col. 3, line 56-

The applicant submits that *Songer* teaches away from providing a set of crimp devices for attachment to first and second portions of the suture to place the suture in tension as claimed by the applicant.

Songer discloses that end sections 32a, 34a of the cable of *Songer* extend about a respective wheel 28 and then rearwardly along the pliers' handle 12 to a capstan member 44. Capstan member 44 includes a shaft which carries a pair of rotary drums 46 on opposite sides of handle 12, with shaft 45 extending completely through handle 12. Shaft 48 also extends through the end of handle 12 to serve as a single, rotating handle for controlling the winding of drums 46. A torque wrench is used to engage shaft 48, and is rotated to cause rotation of shaft 45 and drums 46. This results in a tightening of cable ends 32a, 34a. See Col. 3, line 56 – Col. 4, line 10 and Figs. 1 and 2 of *Songer*. Figure 2 of *Songer* is reproduced below for reference purposes.



Attaching crimp devices to first and second portions of the suture of *Songer* would interfere with the operation of the *Songer* pliers system. If crimp devices are attached to the tips of end sections 32a, 34a of *Songer*, then the crimp devices will prevent end sections 32a, 34a from being threaded through drums 46. If crimp devices are attached further along end sections 32a, 34a of *Songer*, then they will limit how much the cable ends can be tightened. During the tightening of the cable ends, such crimp devices would eventually be pulled into contact with drums 46. At that point, no further tightening of the cable ends could occur due to the interference of the crimp devices.

Accordingly, it is clear that attaching crimp devices as claimed by the applicant to the cable of *Songer* would interfere with the operation of the *Songer* system. Therefore, the applicant submits that *Songer* teaches away from attaching crimp devices to first and second portions of the cable as claimed by the applicant. As such, the claims of the subject application are clearly patentable over *Songer* for at least this reason.

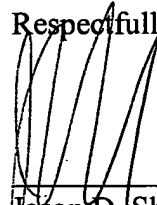
Additionally, nowhere does *Songer* disclose, teach or suggest attaching a crimp tube to a single portion of the suture. *Songer* solely discloses that the crimp tube is used to contain two portions of the cable. See Col. 2, lines 27-33; Col. 3, line 30 - Col. 4, line 26; and Figs. 3 and 4 of *Songer*. As *Songer* fails to disclose crimping the crimp tube about just one portion of the cable, one would not be motivated to attach additional crimp tubes to the first and second portions of the cable as claimed by the applicant.

Accordingly, the applicant submits the claims of the subject patent application are patentable over *Songer* for this additional reason.

If for any reason these Preliminary Remarks are found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution,

please telephone the undersigned or his associates collect in Waltham, Massachusetts
at (781) 890-5678.

Respectfully submitted,

A handwritten signature in black ink, consisting of several vertical, wavy strokes, positioned over a horizontal line.

Jason D. Shanske
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